



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/560,991

12/18/2006

Itay Katz

CYCL-001 PCT US

3744

26137

7590

06/09/2009

PATENT DEPARTMENT
SKADDEN, ARPS, SLATE, MEAGHER & FLOM LLP
FOUR TIMES SQUARE
NEW YORK, NY 10036

EXAMINER

MUHEBBULLAH, SAJEDA

ART UNIT

PAPER NUMBER

2174

MAIL DATE

DELIVERY MODE

06/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/560,991	Applicant(s) KATZ ET AL.	
	Examiner SAJEDA MUHEBBULLAH	Art Unit 2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/18/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 8-10 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Hellyar et al. ("Hellyar", US 7,346,855).

As per claim 1, Hellyar teaches a Virtual Desktop for use in a computer-processing environment having at least one processing unit with a respective operating-system, and the Virtual Desktop comprises:

at least one dynamic substantially cyclic electronic-data structure (col.7, lines 52-62);
associated with each said data structure, an ongoing algorithmic activity that is respectively regularly transforming at least one process from a plurality of processes executing in the environment to an associated graphic representation (col.6, lines 50-54);

logically assigning the representation to a location in the data structure (col.7, lines 1-4);
and

a graphic user interface facilitating displaying on a display device (col.5, lines 24-26), the representations assigned to at least a portion of the data structure , and in response to data received from a user, modifying the assignment of representations to locations in the data structure (col.7, lines 1-5).

Art Unit: 2174

As per claim 2, Hellyar teaches a Virtual Desktop according to claim 1 wherein the at least one dynamic substantially cyclic electronic-data structure includes a reduced resolution meta-data-structure storing pointers to locations in the cyclic electronic-data structure (col.7, lines 52-62).

As per claim 3, Hellyar teaches a Virtual Desktop according to claim 1 wherein the ongoing algorithmic activity includes at least one program substantially as hereinbefore described and illustrated and selected from the list: UIManager (UI), MapManager (MAP), AnimatorManager (ANIM), SystemHookManager (SYSHOOK), ScrollManager (SCROLLER), Executable Code Core Algorithm Group (ECCAG) (col.6, lines 8-20).

As per claim 4, Hellyar teaches a Virtual Desktop according to claim 1 wherein the graphic user interface includes at least one program function substantially as hereinbefore described and illustrated and selected from the list: Window Grouping, 3D support, Sticky window, Multiple monitors support, Loop Compactification, Multiple Loop support, Increased MAX window size (col.8, lines 1-12; Fig.3C; *3D support*).

As per claim 5, Hellyar teaches a Virtual Desktop according to claim 1 wherein the associated graphic representation is selected from the group consisting of a high resolution snapshot of a GUI of the process, a low resolution snapshot of a GUI of the process, a symbolic graphic representation for the process, a high resolution data stream of a GUI of the process, a low resolution data stream of a GUI of the process, a symbolic graphic representation data stream for states of the process (col.6, lines 42-49).

As per claim 8, Hellyar teaches the Virtual Desktop according to claim 1, further comprising storing said data structure in non-volatile memory and further comprising retrieving

Art Unit: 2174

said data structure from said non-volatile memory and initiating said processes logically assigned to locations in the data structure by reference to the transformed graphical representation stored in said data structure (col.5, lines 1-4, col.5, line 62-col.6, line 5).

As per claim 9, Hellyar teaches a method of recalling an arrangement of program instances, comprising:

providing a user interface for adding at least one instance of a program to a data structure storing program instance indicators, each program including a graphical interface which is indicative of a state of said program instance, the data structure storing said instances has an ordered closed loop linked group (col.7, lines 52-62);

associating each of said added instances with a graphical representation (col.6, lines 42-49);

displaying a plurality of representations from the graphical representations associated with instances added to said data structure in a horizontal linked orientation whereby adjacent graphical representations share at least one image frame border (Fig.3E);

providing an interface for a user to horizontally scroll said displayed representations to reveal additional representations associated with reciprocal representations by said closed loop linked group (col.7, lines 59-62);

providing an interface for a user to recall an instance of a program corresponding to a displayed graphical representation by selecting said graphical representation from said display (col.7, lines 18-21; 34-36);

storing said data structure in non-volatile computer memory (col.5, lines 1-4);

Art Unit: 2174

recalling said arrangement of program instances by retrieving said stored data structure for said non-volatile memory and displaying a plurality of the representations from graphical representations associated with instances stored in said data structure to allow the user to recall program instances (col.5, line 62-col.6, line5).

As per claim 10, Hellyar teaches the method of Claim 9, further comprising providing a user interface for repositioning graphical representations within said horizontal display linked and updating data associated with at least one instant in said data structure in response to a user repositioning of a graphical representation associated with said instant (col.8, lines 1-12).

As per claim 12, Hellyar teaches the method of Claim 9, further comprising in response to retrieving of said data structure initiating an instance of each program associated with an instance stored in said data structure, the initiating is of a state of the instance corresponding to the stored instance indicator in the data structure so as to have said instances available for providing to the user in response to user selection of graphical representations from said horizontal linked display (col.7, lines 18-21, 34-36).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2174

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hellyar et al. (“Hellyar”, US 7,346,855).

As per claim 6, Hellyar teaches a Virtual Desktop according to claim 1 wherein the plurality of processes is selected from the group consisting of a

A. at least two programs selected from the group consisting of electronic mail, word processing, streaming media, net-radio, net-television, net-video, web browser, chat room, electronic messaging, graphic application package, PowerPoint, Architecture support program, interior design support program, *CAD~CAM*, accounting support program, spread-sheet program (Fig.3E-3F).

However, Hellyar does not explicitly teach the processes to consist of B. at least two programs selected from the group consisting of real time financial data stream presentation program, transaction events validation program, aggregate analysis of transaction events program, collective transaction management support program, financial analysis alert program, financial analysis alarm program, day-trader interaction program, brokerage management directive program; C. at least two programs selected from the group consisting of project management program, supply chain program, scheduling program, accounting program, project coordination program, resource allocation program; D. at least two programs selected from the group consisting of ECG monitor program, EEG monitor program, physiological monitor program, medical history report program, drug interaction program, medical expert system program, correlation of physiological monitors program, medical condition alerts program, medical condition alarm program, medical information system program; E. at least two programs selected from the group consisting of genomic data base series display program, local search

Art Unit: 2174

genomic fragment identification computation program, correlation to known organic compounds identification program, genomic computation strategy comparison program; F. at least two programs selected from the group consisting of artistic composition arrangement protocol, orchestration program cinematography production management program, animation program audio special effects program, visual special effects program, multimedia performance event program, film editing program, audio editing program, audio mixing program, visual series mixing and sequencing program; G. at least two programs selected from the group consisting of an interactive command-control facility program, an observation monitoring program, a passive viewing of status program, an alert activating program, an alarm activating program; and H. a first program selected from any of the aforesaid groups, a second program selected from any of the aforesaid groups, and a third program interrelating data content from the first program with data content from the second program. Official Notice is taken that various type of applications are available for use on computers. It would have been obvious to one of ordinary skill in the art at the time of the invention to include various applications with Hellyar in order to accommodate the user's needs.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hellyar et al. ("Hellyar", US 7,346,855) in view of Traut et al. ("Traut", US 7,506,265).

As per claim 11, Hellyar teaches displaying bitmap representations of programs (Hellyar, col.6, lines 42-49). However, Hellyar does not teach the method further comprising periodically updating the program instance indicator for each instance in said data structure by reference to a current program instance state and updating said graphical representation for each said program

Art Unit: 2174

instance. Traut teaches a method of displaying bitmap representations of programs which are updated periodically (Traut, col.5, lines 13-31). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Traut's teaching with Hellyar's method in order for the user to visualize the current state of the program.

6. Claims 13-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hellyar et al. ("Hellyar", US 7,346,855) in view of Ueda et al. ("Ueda", US 5,889,517).

As per claim 13, Hellyar teaches a method for managing application instances on a computer system, comprising:

generating a bitmap representation for each of a plurality of application instances executing on a computer system (col.6, lines 42-49);

associating the bitmap representations with relative positions by storing identifiers for each representation and corresponding application instance with a corresponding position in a data structure to provide an ordered bitmap set (col.7, lines 55-59);

displaying the bitmap representation associated with the current active application instance and at least two other bitmap representations along substantially a top portion of said computer display, the bitmap representations arranged linearly, extending horizontally and arranged by reference to the relative positions stored in said data structure (Fig.3E; col.8, lines 30-47);

providing a user interface for requesting a horizontal displacement of said displayed bitmap representations (col.8, lines 44-47);

Art Unit: 2174

displaying at least one additional bitmap representation along said top portion in response to a user request for horizontal displacement (col.8, lines 35-44); and

modifying the displayed first active application instance in response to a user request for horizontal displacement, said second active application instances identified by reference to the relative positions of the first active application instance and the second active application instance (col.8, lines 44-47).

However, Hellyar does not teach displaying at least one application instance as a first active application instance, said displaying is substantially over a lower portion of the computer display. Ueda teaches a method of displaying application instances wherein active applications are displayed in a lower portion (Ueda, Fig.1, *lower area 110*; col.3, lines 3-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Ueda's teaching with Hellyar's method in order to view both active and inactive applications simultaneously.

As per claim 14, Hellyar teaches a method for managing application instances on a computer system, comprising:

generating a bitmap representation for each of a plurality of application instances executing on a computer system (col.6, lines 42-49);

associating the bitmap representations with relative positions by storing identifiers for each representation and corresponding application instance with a corresponding position in a data structure to provide an ordered bitmap set (col.7, lines 55-59); and

displaying the bitmap representation associated with the current active application instance and at least two other bitmap representations along a top portion of said computer

Art Unit: 2174

display, the bitmap representations arranged linearly, extending horizontally and arranged by reference to the relative positions stored in said data structure (Fig.3E; col.8, lines 30-47).

However, Hellyar does not teach displaying at least one application instance as a first active application instance over a substantially lower portion of the computer display, the first active application instance associated with a first relative position; displaying an adjacent application instance as the current active application instance, said adjacent application instance associated with a second relative position, in response to a user selection of a horizontal navigation control provided in said lower portion, said adjacent application instance identified by reference to said first relative position, said second relative position and the direction of horizontal navigation selected by said user. Ueda teaches a method of displaying application instances wherein active applications are displayed in a lower portion and adjacent applications are displayed in the lower portion wherein the user can position applications (Ueda, Fig.1, *lower area 110*; col.3, lines 3-13, 53-65). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Ueda's teaching with Hellyar's method in order to view both active and inactive applications simultaneously and reposition applications.

As per claim 16, Hellyar teaches a method for managing application on a computer system display, comprising:

generating a bitmap representation for each of a plurality of application instances executing on a computer system (col.6, lines 42-49);

associating the bitmap representations with relative positions by storing identifiers for each representation and corresponding application instance with a corresponding position in a data structure to provide an ordered bitmap set (col.7, lines 55-59);

Art Unit: 2174

recalling application instances associated with said first data structure in response to user selection of said first data structure (col.5, line 62-col.6, line 5; col.7, lines 18-21; 34-36);

displaying at least one application instance as a current active application instance, the current active application instance associated with a first relative position (col.7, lines 18-21, 34-36);

displaying the bitmap representation associated with the current active application instance and at least two other bitmap representations along a top portion of said computer display, the bitmap representations arranged linearly, extending horizontally and arranged by reference to the relative positions stored in said data structure (Fig.3E; col.8, lines 30-47).

However, Hellyar does not teach associating each bitmap representation with a relative position by storing the identifiers in a second data structure and recalling application instances associated with said second data structure in response to user selection of said second data structure. Ueda teaches a method of displaying and recalling applications in a first and second data structure (Ueda, Fig.1A, 120A-B; col.3, lines 14-23). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Ueda's teaching with Hellyar's method in order to group applications separately.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hellyar et al. ("Hellyar", US 7,346,855) and Ueda et al. ("Ueda", US 5,889,517) in view of Hatta et al. ("Hatta", US 2003/0167447)

As per claim 15, the method of Hellyar and Ueda teaches the method displaying bitmap representations (Hellyar, col.6, 1 lines 42-49). However, the method of Hellyar and Ueda does

Art Unit: 2174

not teach the method further comprising modifying the relative position of said bitmap representations in said data structure by reference to user dragging of bitmap representations within said top portion display area. Hatta teaches a method of displaying bitmap representations of files in one area and dragging the representations to change their positions (Hatta, para.0156; Fig.8, area 144). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Hatta's teaching with the method of Hellyar and Ueda in order for the user to manipulate the applications to their preferred order.

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hellyar et al. ("Hellyar", US 7,346,855) and Ueda et al. ("Ueda", US 5,889,517) in view of Traut et al. ("Traut", US 7,506,265)

As per claim 17, the method of Hellyar and Ueda teaches displaying bitmap representations of programs (Hellyar, col.6, lines 42-49). However, the method of Hellyar and Ueda does not teach the method further comprising viewing updated states of applications instances by displaying updated bitmap representations of the application instances while the active application instance is not included in the data structure of the strip. Traut teaches a method of displaying bitmap representations of programs which are updated periodically (Traut, col.5, lines 13-31). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Traut's teaching with the method of Hellyar and Ueda in order for the user to visualize the current state of the program.

Art Unit: 2174

9. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hellyar et al. (“Hellyar”, US 7,346,855) and Ueda et al. (“Ueda”, US 5,889,517) in view of Jobs et al. (“Jobs”, US 6,957,395).

As per claim 18, the method of Hellyar and Ueda teaches displaying applications along with bitmap representations (Hellyar, Fig.3E). However, the method of Hellyar and Ueda does not teach the method further comprising facilitating drag and drop functions between the active application and the application instances associated with the bitmap representations by transferring dropped data to a corresponding application by reference to the data structure storing the applicable bitmap representation. Jobs teaches a method of displaying applications wherein data from one application can be dragged and dropped to another application (Jobs, col. 7, lines 3-14). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Jobs’ teaching with the method of Hellyar and Ueda in order to transfer data from one application to another more efficiently.

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hellyar et al. (“Hellyar”, US 7,346,855) in view of Jobs et al. (“Jobs”, US 6,957,395).

As per claim 19, Hellyar teaches a method of recalling an arrangement of program instances, comprising:

providing a user interface for adding an instance of a program to a data structure storing program instance indicators, each program including a graphical interface which is indicative of a state of said program instance, the data structure storing said instances has an ordered closed loop linked group (col.7, lines 52-62),

Art Unit: 2174

storing said data structure in non-volatile computer memory (col.5, lines 1-4);

recalling said arrangement of program instances by retrieving said stored data structure for said non-volatile memory and displaying a plurality of the representations from graphical representations associated with instances stored in said data structure (col.5, line 62-col.6, line 5).

However, Hellyar does not teach the data structure further storing a location and size corresponding to each program instance. Jobs teaches a method of displaying applications wherein the size and position is stored for the applications (Jobs, col.4, lines 18-22). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Jobs' teaching with Hellyar's method in order to restore an application to where user left off.

11. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hellyar et al. ("Hellyar", US 7,346,855) and Jobs et al. ("Jobs", US 6,957,395) in view of Ueda et al. ("Ueda", US 5,889,517).

As per claim 20, the method of Hellyar and Jobs teaches the method of claim 19. However the method of Hellyar and Jobs does not teach wherein said user interface comprises a user selection monitoring process that facilitates user selection of displayed data indicative of program instances and user direction of the selected data to the data structure so as to add the selected program instances to the data structure and further wherein said method automatically initiates the selected program instances in response to said user direction of the selected program instances to the data structure. Ueda teaches a method of displaying applications wherein user direction determines what to add to the data structures and which applications to initiate (Ueda,

Art Unit: 2174

col.3, lines 53-65). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Ueda's teaching with the method of Hellyar and Jobs in order to manipulate applications seamlessly.

As per claim 21, the method of Hellyar, Jobs, and Ueda teaches the method of Claim 20, wherein said data structure further stored default data for program instance location and size which is referenced when automatically initiating program instances in response to said user direction (Jobs, col.7, lines 60-67).

As per claim 22, the method of Hellyar, Jobs, and Ueda teaches the method of Claim 20, wherein the user interface further includes an interface for specifying the position of the selected data within the data structure (Ueda, col.6, lines 22-27).

Communications

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAJEDA MUHEBBULLAH whose telephone number is (571) 272-4065. The examiner can normally be reached on Wed/Thur and alt.Mon 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Chow can be reached on 571-277-7767. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2174

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sajeda Muhebbullah/
Examiner, Art Unit 2174

/DENNIS-DOON CHOW/

Supervisory Patent Examiner, Art Unit 2174